

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (previously presented) A process for welding one or more metal workpieces to be joined together by producing at least one welded joint between edges to be welded of said metal workpiece or workpieces, said workpiece or workpieces being made of steel, by using at least one laser beam and at least one electric arc, in which process, during welding of the joint, shielding at least one part of a welding zone comprising at least one part of said welded joint during welding with at least one shielding atmosphere formed by a ternary gas mixture consisting of:

argon;

helium, the argon and the helium with a content greater than or equal to 70% by volume; and

a third gas consisting of O₂ or CO₂ with a content of non zero to 30% by volume.

2. (previously presented) The welding process as claimed in claim 1, wherein the content of O₂ or CO₂ is non zero and less than or equal to 20% by volume.

3-6. (cancelled)

7. (previously presented) The welding process as claimed in claim 1, wherein the shielding atmosphere is formed by a gas mixture consisting of at least 70% by volume of helium and argon and of 0.1 to 30% by volume of O₂ or CO₂.

8. (previously presented) The welding process as claimed in claim 1, wherein the workpiece or workpieces to be welded are made of coated or uncoated steels.

9. (previously presented) The welding process as claimed in claim 1, wherein the workpiece or workpieces to be welded are made of stainless steel or carbon steel.

10-14. (cancelled)

15. (previously presented) The welding process as claimed in claim 1, wherein the laser beam is emitted by an Nd:YAG or CO₂ laser and/or wherein the electric arc is a plasma arc.

16. (previously presented) The welding process as claimed in claim 1, wherein the electric arc is delivered by a plasma-arc torch.

17. (cancelled)

18. (previously presented) The welding process as claimed in claim 1, wherein said metal workpiece comprises at least one tailored blank intended to constitute at least one part of a vehicle body element.

19. (previously presented) The welding process as claimed in claim 1, wherein said metal workpieces have different thicknesses.

20. (previously presented) The welding process as claimed in claim 1, wherein said metal workpieces have the same or different thicknesses and have different metallurgical compositions or metallurgical grades.

21. (previously presented) The welding process as claimed in claim 1, wherein the edges comprise two longitudinal edges of a pre-tube.

22. (previously presented) The welding process as claimed in claim 1, wherein the electric arc is generated by a consumable or a non-consumable electrode.

23. (previously presented) The welding process as claimed in claim 1, wherein the third gas consists of CO₂ with a content of non zero and less than 15% by volume.

24. (previously presented) The welding process as claimed in claim 1, wherein the third gas consists of O₂ with a content of non zero and less than 5% by volume.

25. (previously presented) The welding process as claimed in claim 1, wherein the third gas consists of CO₂ with a content of non zero and less than 2% by volume.

~~26~~ 28. (cancelled)